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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,955	01/08/2002	Brent Anderson	113937-002	4496
24573	7590	12/06/2004	EXAMINER	
BELL, BOYD & LLOYD, LLC PO BOX 1135 CHICAGO, IL 60690-1135				PIAZZA CORCORAN, GLADYS JOSEFINA
ART UNIT		PAPER NUMBER		
		1733		

DATE MAILED: 12/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/042,955	ANDERSON ET AL.	
	Examiner Gladys J Piazza Corcoran	Art Unit 1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 20 October 2004.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,3-8,10-27,29,30 and 32-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,3-8,10-27,29,30 and 32-60 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

FINAL ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 3, 5, 6, 10-20, 22-27, 29, 30, 32-41, 43, 48, 49, 56-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kristen (US Patent No. Re 34,929) in view of Mallik (US Patent No. 6,533,884).

Kristen discloses a method for treating a surface of a layered polymeric structure suitable for forming a fluid container where two polymeric sheets (heat sealable inner layer and gas-impermeable outer layer) are bonded with an intermediate polymeric material (intermediate layer) and where an outer surface of one of the sheets is textured to form a pattern on the outer surface where the pattern is dimensioned to

form fluid pathways on the outer surface to assist in removing fluid from the surface (intersecting channels).

Kristen does not entirely disclose all the particulars of the method of texturing the structure, stating that the films may be laminated, co-extruded, or extrusion coated and that the texturing (embossments) can be formed during extrusion or post-embossed.

Mallik discloses it is known in the art to form packaging material laminates by embossing the laminate during extrusion lamination in order to overcome the disadvantage of disrupting the barrier properties when post-embossing and prevent flattening the embossed pattern when embossing prior to laminating. Mallik teaches that the embossed laminates for packaging materials are formed by providing a first and second non-molten polymeric sheet material, positioning the first or second sheets to overlap to define an interference zone, directing a first molten polymeric material into the interference zone to adhere the first sheet to the second sheet to form the layered structure and texturing an outer surface of the first sheet or the second sheet using a chill roll. It would have been obvious to one of ordinary skill in the art at the time of the invention to form the laminate as shown by Kristen by overlapping two non-molten sheets, directing a molten material between the overlap and texturing the outer surface of one of the sheets utilizing a chill roll to form a pattern as is considered a known process in the art and an improvement over pre and post embossing as shown by Mallik.

As to claim 3, Kristen discloses the sheets are monolayers. As to claims 5,6 and 10, Kristen and Mallik disclose the claimed polymers for the outer sheets, additionally, it

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would have been well within the purview of one of ordinary skill in the art to select any of the well known polymeric materials for packaging layers. As to claim 11, Kristen discloses the sheet is a polyamide (nylon) (column 4, lines 54-61). As to claim 12, such nylons are considered well known nylons in the art for packaging materials and it would have been well within the purview of one of ordinary skill in the art to select such materials. As to claim 13, Mallik discloses extruding the intermediate layer. As to claim 14, both Kristen and Mallik disclose the intermediate layer is a polyolefin layer. As to claim 15, the molten polymeric material in Kristen and Mallik is a homopolymer of ethylene. As to claim 16, Mallik discloses the step of texturing is carried out substantially simultaneously to the step of joining. Mallik additionally discloses it is known in the art to perform the step of texturing either prior to or after laminating and it would have been well within the purview of one of ordinary skill in the art to perform the texturing step either before or after laminating when not concerned about losing barrier properties or flattening of the pattern. As to claims 17, 18, 19, Mallik discloses texturing by contacting the sheet with a surface having a pattern on a chill roll. As to claim 20, the embossing roll is considered to read on a back-up roll. As to claims 22 and 23, the pattern is such that the surface of the embossing roll has parts that extend inward and parts that extend outward. As to claim 24, Kristen discloses the embossing rolls may be steel on steel or steel on rubber and Mallik discloses the chill roll may comprise materials including steel. As to claim 25, Kristen discloses the back-up roll is made of rubber. Additionally it is noted that it is known in the art to form rolls of cork or plastic and it would have been well within the purview of one of ordinary skill in the art at the

time of the invention to provide the rolls of known materials. As to claim 26, the pattern in Kristen is considered to comprise a plurality of spaced objects (waffle pattern). As to claims 27 and 29, as discussed above, Kristen and Mallik disclose the claimed polymers for the outer sheets, additionally, it would have been well within the purview of one of ordinary skill in the art to select any of the well known polymeric materials for packaging layers. As to claim 30, Mallik discloses the step of texturing is carried out substantially simultaneously to the step of joining. As to claim 32, the intermediate layer in Kristen and Mallik is considered to be an adhesive material. As to claims 33, 34, 35, Mallik discloses texturing by contacting the sheet with a surface having a pattern on a chill roll. As to claim 36, the embossing roll is considered to read on a back-up roll. As to claim 37, Mallik discloses that all the rolls are chilled therefore, the embossing roll reads on the second roll having the surface pattern. As to claims 38 and 39, the pattern is such that the surface of the embossing roll has parts that extend inward and parts that extend outward. As to claim 40, the pattern in Kristen is generally a checkerboard pattern (waffle pattern). As to claim 41, Kristen discloses the pattern is a series of protuberances (column 4). As to claim 43, Kristen discloses the protuberances have a polygonal shape (rectangular and triangular). As to claims 48, 49, 56, Kristen discloses the sheets are monolayers. As to claim 57, Kristen discloses the sheet materials are of a variety of well known packaging materials including polyamide and polyester (column 4, lines 54-61). As to claim 58, the intermediate layer in both Kristen and Mallik is a polyolefin layer. As to claims 59 and 60, Kristen and Mallik disclose the intermediate layer is a homopolymer of polyethylene.

4. Claims 20-23, 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kristen (US Patent No. Re 34,929) in view of Mallik (US Patent No. 6,533,884) as applied to claims 17, 18 33, 34 above, and further in view of Karfoil et al. '594 (US Patent No. 2,392,594) and/or Karfoil et al. '300 (US Patent No. 2,477,300).

As to claims 20, 21, 37, it is well known in the embossing art to provide two rolls including a back up roll containing the embossing surface pattern for embossing the material. For example, Karfoil '594 discloses an example of two rolls E and E' for embossing polymeric material prior to the laminating step in order to ensure a proper embossment of the material. While, Karfoil '300 discloses an example of where two rolls (11 and 4) are provided with a surface pattern in order to provide the pattern on both sides of the material. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the method of forming a laminate as shown by Kristen and Mallik by providing two embossing rollers including a back up roll with a surface pattern as is considered well known in the art and further exemplified by Karfoil '594 in order to provide a proper embossment in the material and/or Karfoil '300 in order to emboss both sides of the laminate.

As to claims 22, 23, 38, 39 it is considered well known in the art to emboss with surface patterns containing patterns that either extend outward, extend inward or both. For example, the rolls in Karfoil '594 contain inward and outward extending patterns (E, E'). Additionally, the rolls in Karfoil '300 also show rolls containing inward and outward extending patterns. It would have been obvious to one of ordinary skill in the art at the time of the invention to form the laminate as shown in Kristen and Mallik by providing

the pattern as extending inward and/or outward as is considered well known in the art and further exemplified by Karfoil '594 and/or Karfoil '300.

5. Claims 42, 44, 45, 46, 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kristen (US Patent No. Re 34,929) in view of Mallik (US Patent No. 6,533,884) as applied to claim 41 above, and further in view of Taunton (US Patent no. 2,778,171) and/or Taunton (US Patent No. 2,778,173).

It is considered well known in the art to provide a variety of different patterns including circular, irregular, multiple shapes on one surface, tear drop, S-shaped etc. for providing passage ways for fluid to flow in packaging materials. For example, the Taunton references disclose it is known in the art to provide a pattern of circular protuberances, irregular shape patterns, s-shaped patterns and protuberances of differing shapes. It would have been obvious to one of ordinary skill in the art at the time of the invention to form the laminate as shown by Kristen and Mallik by providing the pattern of embossments in a variety of well known and obvious patterns in order to provide passage for fluids as exemplified by the Taunton references, only the expected results would be attained.

6. Claims 4, 5, 6, 10, 27, 29, 48, 50-54, 56-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kristen (US Patent No. Re 34,929) in view of Mallik (US Patent No. 6,533,884) as applied to claim 30 above, and further in view of Araki et al. (WO 00/18836 with EP 1153974 as the English equivalent).

Kristen discloses that the laminate includes sealant and barrier layers of a variety of materials and additional intermediate layers of a variety of materials. As to claims 5,

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6, 11, 27 and 29, Araki discloses the well known materials for forming the polymeric layers. As to claims 4, 48, 50, 51, 56, Araki discloses it is known in the art to provide sealant or base materials of either mono or multiple layers. As to claims 52-54, Araki discloses multiple layers selected from a group of polymers including polyolefins, barrier materials, PVOH, PVDC (page 17). As to claim 57, Araki also discloses that the base material may comprise of polyamide or polyester (page 17). As to claim 58, both Kristen and Araki disclose the intermediate layer is of a polyolefin material. As to claim 59 and 60, Kristen discloses the intermediate layer is a homo polymer of polyethylene. As to claim 59, Araki discloses the intermediate layer (resin layer) is a copolymer of ethylene and alpha-olefin having from 3-20 carbons. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the method of forming a laminate as shown in Kristen and Mallik with well known material layers and compositions for the barrier, sealant and intermediate layers as exemplified by Araki, only the expected results would be attained.

7. Claims 7, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kristen (US Patent No. Re 34,929) in view of Mallik (US Patent No. 6,533,884) as applied to claims 6, 11 above, and further in view of Hofmeister et al. (US Patent No. 6,500,559).

As to claim 7, Kristen discloses forming the outer layers of polyolefin material in particular or polyethylene. Hofmeister discloses it is known in the art to form outer layers of packaging materials of polyolefins including copolymers of ethylene and alpha olefins from 3-20 carbons. It would have been obvious to one of ordinary skill in the art

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at the time of the invention to provide the method of forming the packaging material as shown by Kristen and Mallik by providing well known materials in the packaging arts as the outer layers as exemplified by Hofmeister, only the expected results would be attained.

As to claim 12, Kristen discloses the outer layer is of a polyamide (nylon). It is considered well known in the art to use nylon 6,6, nylon 6, or nylon 6,12 as nylon polyamide layers in packaging laminates. For example, Hofmeister discloses the claimed nylon layers as examples of known polyamide layers used in packaging materials (column 5, lines 1-10). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the polyamide layer in Kirsten with well known nylon layers in the packaging arts as exemplified by Hofmeister, only the expected results would be attained.

8. Claims 8, 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kristen (US Patent No. Re 34,929) in view of Mallik (US Patent No. 6,533,884) as further taken with Araki et al. (WO 00/18836 with EP 1153974 as the English equivalent) as applied to claims 4, 51 above, and further in view of Hofmeister et al. (US Patent No. 6,500,559).

As discussed above, Araki discloses it is known in the art to provide the outer layers of packaging materials as multiple layers. Araki also discloses that the multi-layers are selected from a group of materials including EVOH. Hofmeister further discloses it is known to provide the outer layers of packaging materials of an ethylene and alpha-olefin copolymer (column 6, lines 7-17). It would have been obvious to one

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of ordinary skill in the art at the time of the invention to provide the method of forming the laminate as shown by Kirsten, Mallik and Araki with an outer layer of a multi-layer material containing a layer of EVOH as disclosed by Araki and a layer of ethylene and alpha-olefin copolymer as shown by Hofmeister that these layers are known in the art, only the expected results would be attained.

Response to Amendment

9. The declaration filed on October 20, 2004 under 37 CFR 1.131 has been considered but is ineffective to overcome the Mallik (US Patent No. Re 34,929) reference.
10. The evidence submitted is insufficient to establish a conception of the invention prior to the effective date of the Mallik (US Patent No. Re 34,929) reference. While conception is the mental part of the inventive act, it must be capable of proof, such as by demonstrative evidence or by a complete disclosure to another. Conception is more than a vague idea of how to solve a problem. The requisite means themselves and their interaction must also be comprehended. See *Mergenthaler v. Scudder*, 1897 C.D. 724, 81 O.G. 1417 (D.C. Cir. 1897). The combination of the declaration and the exhibit (memorandum) is insufficient to support possession of the invention as currently claimed. For example, there is no evidence of overlapping two non-molten sheets of polymeric material and directing molten material in the overlap portion, nor evidence of texturing the outer surface of one of the non-molten sheets. See MPEP §715, particularly 715.02, 715.07.

11. The evidence submitted is insufficient to establish diligence from a date prior to the date of reduction to practice of the Mallik (US Patent No. Re 34,929) reference to either a constructive reduction to practice or an actual reduction to practice. A mere statement that the invention was worked on diligently since the time of conception is insufficient evidence of facts establishing diligence. See MPEP §715.07a

Response to Arguments

12. Applicant's arguments filed October 20, 2004 have been fully considered but they are not persuasive.

Applicant argues on page 9 that the declaration filed on October 20, 2004 overcomes the reference Mallik (US Patent No. Re 34,929) required for all the art rejections. As discussed above the declaration is insufficient to overcome the Mallik (US Patent No. Re 34,929) reference.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gladys J Piazza Corcoran whose telephone number is (571) 272-1214. The examiner can normally be reached on M-F 8am-5:30pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Gladys J.P. Corcoran
Primary Examiner
Art Unit 1733

GJPC